



Directorate of  
Intelligence

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# Near East and South Asia Review

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Supplement  
19 December 1986

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Article

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*Some articles are preliminary views of a subject or speculative, but the contents  
normally will be coordinated as appropriate with other offices within CIA.  
Occasionally an article will represent the views of a single analyst; these items  
will be designated as noncoordinated views*



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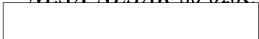


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Article

Why the Iraqi Air Force  
Has Been More  
Effective

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In the second half of 1986 the Iraqi Air Force, for the first time in the Iran-Iraq war, succeeded in severely damaging Iran's economy. Air raids on major oil export facilities at Khark, Sirri, and Larak Islands have robbed Tehran of much-needed oil revenues. Attacks on oilfields and refineries have caused fuel shortages and forced the regime to ration gasoline. In December, Baghdad began to target electrical generation and transmission stations, aggravating already serious power outages in Tehran. The Iraqi Air Force's increased effectiveness is an outgrowth of developing proficiency with more modern aircraft and weapons, weak Iranian air defenses, and more aggressive tactics.

Iraq's successes have reshaped perceptions about the course of the war. In early 1986, Iraq's ability to stave off ultimate defeat was in doubt, but, as 1987 begins, it is Iran's ability to withstand the pressures of a collapsing economy and to continue the war that is in question. In addition to hastening the deterioration of the Iranian economy, Iraq's air campaign is likely to reduce popular support for the war and possibly the Khomeini regime.

Background

There are numerous differences between Iraq's application of airpower against strategic targets in 1985 and the past year. Throughout much of 1985, Baghdad primarily used Soviet-built MIG-25 Foxbat fighters. This aircraft was not designed as a bomber but was used by Iraq to drop iron bombs because it could operate in relative safety from high altitudes at high speeds. Baghdad usually sent too few aircraft to do much damage given the tactics and weapons employed. Also, Iraqi raids were sporadic, and Baghdad failed to follow up with repeated attacks against economic installations. Political interference

has marked Air Force operations throughout the war, and instructions to avoid aircraft losses remained in force in 1985.

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In the past year, Iraq has increasingly relied upon the French-made Mirage F-1. The precision-guided munitions used by the F-1, the French-built Exocet and AS-30L, have provided greater accuracy and caused more damage than iron bombs. These missiles also have allowed Iraqi pilots to use relatively more daring tactics without exposing themselves to greater risk. Moreover, Baghdad has substantially increased the number of attacks against economic facilities and has engaged in a series of identifiable campaigns—including repeated bombings—against critical strategic targets.

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Modernization Pays Off

Despite the war, Iraq has continued the Air Force modernization program begun just before the conflict. The addition in recent years of more modern aircraft, such as the Mirage F-1, and new ordnance has slowly expanded the Air Force's capabilities. Although the F-1 was operationally employed in 1984, we believe that it has taken time for sufficient numbers of Iraqi pilots—originally trained in fighter tactics—to reach a level of proficiency necessary to sustain the current bombing campaign.

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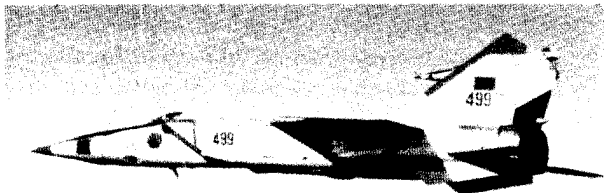
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MIG-25

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**Iraq's Airpower Goals**

*Iraqi air strategy has focused on two main objectives throughout the war. Priority has been given to preventing an Iraqi defeat by using the Air Force to help stop Iranian offensives. Baghdad's other goal has been to try to force Tehran to end the war by attacking economic targets. Despite overwhelming advantages in the air, Iraq has not done well in either mission until its recent successes against Iran's economy.*

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*This outcome was partly the result of limitations placed on the Air Force by the regime. Although Baghdad has been relaxing these limits, we believe that the use of Iraqi airpower remains constrained by two main requirements:*

- The Air Force must keep aircraft losses low to preserve its assets and maintain air superiority until the war ends. In our judgment, this requirement overrides all other considerations in Iraqi air strategy.*
- Air attacks should cause only enough damage to Iran to bring an end to the war without provoking the Iranians to make drastic reprisals against Iraq or its Gulf Arab allies. Baghdad also wants to avoid rallying Iranian support behind the clerical regime.*

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The introduction of the AS-30L laser-guided air-to-surface missiles in 1986 has been critical to the Air Force's improved performance. In late 1985, Iraq used the Exocet missile against Khark Island, but it is not suitable for use against most other economic targets because of its guidance system and small warhead. The AS-30L, however, provides greater accuracy and, with its 240- to 250-kilogram warhead, causes more damage than either the Exocet or some iron bombs. Using either missile has allowed Iraqi pilots to employ better delivery tactics.

The Iraqis also have used the F-1's air-to-air refueling capability to attack more distant targets. In a technique mastered only in 1986, Iraqi pilots have extended the combat radius of their aircraft by drawing fuel from the buddy tanks on other F-1s. This ability has been critical in Iraq's long-range strikes against Iranian oil export terminals at Sirri and Larak Islands

**Iran's Weak Air Defenses**

Another element contributing to Iraq's recent successes has been the inadequacy of Iranian air defenses. Iran's air defenses and ground-based air defenses have been only moderately effective throughout the war. The general deterioration of the Iranian Air Force and the shortages of equipment, spare parts, and capable maintenance personnel for anti-aircraft weapon systems and radars have stymied most of Tehran's efforts to improve its air defense.

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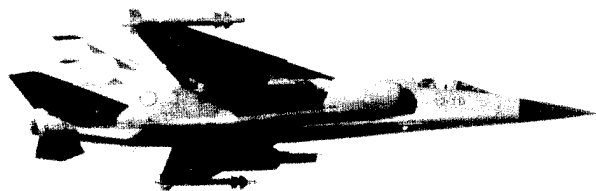
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*Mirage F-1*

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pilots not to take risks, but the campaign has continued and Iraqi losses have been tolerable —only two F-1s have been shot down. Moreover, because of its shrinking inventory, Iran has fired only a few Scud surface-to-surface missiles in retaliation. The Scuds concern Baghdad, but not enough to sidetrack the air campaign. Tehran's other forms of retaliation—usually artillery barrages, or one or two aircraft conducting raids across the border—are largely ineffective.

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Moreover, Iran devotes the majority of its best systems to protecting its ground forces, leaving most economic installations with limited air defense protection. Some key targets on Iran's oil pipelines are guarded only with anti-aircraft guns.

Until Baghdad became more determined to attack economic targets, however, these defenses were not put under pressure. The failure of Iran's air defenses probably has bolstered Iraqi confidence and strengthened Baghdad's will to continue the campaign.

#### **The Will To Win and Iraq's Growing Confidence**

Shaken by the defeats at Al Faw and Mehran, Baghdad apparently decided that it could no longer risk trying to outlast the Iranians in the war. Although averse to risking his better pilots and aircraft, Iraqi President Saddam Husayn probably determined that actions had to be initiated to reduce Iran's ability, if not its willingness, to fight. Iraq probably was also worried over the large buildup of Iranian forces, a threatened major offensive, and its own badly strained resources. We believe that Saddam may have been influenced by critics within the Ba'th Party and the insistence of Jordan, Egypt, and other Iraqi allies that Baghdad do more to seize the initiative from Tehran.

Baghdad's willingness to extend the air campaign was probably reinforced by the growing competence of the Air Force, evidence that Iranian defenses were weak, and Tehran's inability to respond in kind. The Air Force's performance against economic targets suggests that Iraq's political leadership had been restraining it. In late September, Saddam felt compelled after several shootdowns to publicly tell his

#### **Outlook**

Baghdad appears confident that it is pursuing an effective and relatively low-cost course, both militarily and politically. Iraq will probably maintain its current pace of attacks, although it is likely to pause occasionally to gauge the results. We believe Iraq can sustain its air campaign.

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The Iraqis will probably plan additional strikes against high-visibility targets such as Larak Island as the regime tries to raise morale while keeping pressure on Tehran. Baghdad may hope that Iranian discontent will cause Tehran to launch its planned offensive prematurely.

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Iraq has sufficient aircraft to conduct simultaneously a strategic bombing campaign and attacks against tactical targets.

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An Iranian offensive, however, probably would end the attacks on economic targets for at least the duration of the offensive. During past offensives, the Iraqi General Headquarters has not shown itself able to focus on anything but the Iranian attack. After the fighting subsides, Baghdad probably would resume the attacks against Iranian economic facilities.

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**Recent Iraqi Air Attacks Against Iranian Power Facilities**

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